Transmitted via email to Ms. Kristine Koch, EPA Remedial Project Manager for the Portland Harbor Superfund Site, with a request to forward to the National Remedy Review Board

October 19, 2015

RE: Portland Harbor Superfund Site

Dear Remedy Review Board Members:

The undersigned businesses (Commenters), which are potentially responsible parties (PRPs) at the Portland Harbor Superfund Site (Site), respectfully submit the following comments to the EPA Remedy Review Board (RRB) pursuant to the enclosed EPA guidance. Mem. re Nat. Remedy Review Bd. (Sept. 26, 1996) at page 3-4. Because the Commenters are "PRPs that are substantively involved in conducting the RI/FS process," this submission "should be attached to the informational site package provided to all RRB members." *Id.* at 3-4. For example, each Commenter has voluntarily expended substantial resources participating in the EPA-initiated Portland Harbor Participation and Common Interest Group (PCI Group), which is conducting a nonjudicial allocation of liability among PRPs to create a settlement framework for funding the Site response action, including the costs of the Remedial Investigation (RI) and Feasibility Study (FS) Reports (RI/FS). In addition, individual Commenters have funded and conducted, among other things, the data collection and analysis described in this memorandum and extensive stakeholder input at every step of the RI/FS process.

The Commenters are concerned that EPA Region 10 may be overlooking recent, relevant data that are consistent with the RI's empirical analysis and which indicate that the Site is naturally recovering at rates substantially higher than previously estimated, with significant implications for the current draft FS's proposed remedial alternatives. Also, the FS has the following fundamental flaws:

1. The scope and scale of the remedy are based on data that are essentially 10 years old;
2. The risk drivers for the remedy are based on unrealistic exposure inputs;
3. The cost, duration, and community impacts of the remedial alternatives are significantly underestimated;
4. The unnecessarily deleterious consequences to fish, river water quality and residents resulting from the massive dredging project contemplated under the remedial alternatives are inadequately evaluated; and
5. The adverse consequences to Portland Harbor businesses will compromise its role as a leading regional port, which will significantly affect the greater Portland community and economy.

The Commenters respectfully submit the comments below within the following four categories:

Natural Recovery: Recent data (2012/2014) document statistically significant reductions in surface PCB sediment and fish tissue concentrations, with a conservative reduction of more than 40%. Yet the FS continues to rely on 2004 data to develop remedial options. Such practices are not consistent with EPA guidance or the National Contingency Plan. Instead, EPA should continue to quantify and evaluate the ongoing effects of natural recovery on the river system and the viability of monitored

natural recovery as a larger component of the FS's active remedial alternatives. At the September 29, 2015 meeting with PRPs, EPA stated that the FS's remedial alternatives contemplate monitored natural recovery on only 60% of the Site.

Constructability: The volume, production rates, impacts on local infrastructure and limitations of river use and access make the FS's proposal for 24-hours-per-day/6-days-per-week work ongoing for decades an unrealistic and a likely unsustainable option. The FS lacks a sustainability evaluation, the need for which has recently been reinforced by the current administration's Executive Memorandum M16-01 (Oct. 7, 2015), applying to all federal agencies.

Risk: The Site's risks are based on unrealistic exposure scenarios driven by proprietary consumption rates. Using a risk scenario of an adult woman in an urban area eating ~3 pounds of fish a week from the Site for 25 years and then breast-feeding an infant is unrealistic and unprecedented. The risk assessment is also based on data that have not been fully shared, and thus the process lacks the required transparency. Additionally, the artificially low Principle Threat Waste threshold negates conditions that would be amenable to capping in other EPA regions. The FS's approaches to risk analysis are not consistent with EPA's Contaminated Sediment Remediation Guidance for Hazardous Waste Sites, OSWER 540-R-05-012 (Dec. 1, 2005), and the National Contingency Plan.

Dredging: The FS's dredging plan is overly simplistic and lacks any underpinning of detailed planning and engineering. The FS ignores the available detailed dredge prism information and relies instead on a simplistic "box" method that significantly underestimates dredge volumes. In addition EPA is including dredge depths below those currently authorized by Congress.

We understand that EPA Region 10 will be meeting with the RRB next month to discuss the remedy for the Site. The Commenters request that the RRB encourage Region 10 to seriously consider the issues discussed in the enclosed comments when selecting a Site Conceptual Remedy. If you would like to discuss these issues further with the Commenters, please contact J.W. Ring at jwring@ringbenderlaw.com or (503) 964-6723.

Respectfully submitted,

Air Liquide USA LLC
Atlantic Richfield Company
BAE Systems San Diego Ship Repair Inc.
BP West Coast Products LLC
Exxon Mobil Corporation
Schnitzer Steel Industries, Inc.
Shaver Transportation Company
The Marine Group, LLC

enc.

Comments to the National Remedy Review Board
Re: Portland Harbor Superfund Site[1]

Monitored Natural Recovery

Although the FS acknowledges that natural recovery (NR) is occurring in the Site, it does not quantify or evaluate the role of continuing NR resulting from natural sediment movement in the Willamette River (River) system, even though multiple lines of evidence support a conclusion that substantial rates of NR are ongoing in the River. Results from both the QEAFate model developed by the Lower Willamette Group (LWG) for the 2012 draft FS[2] and EPA's SEDCAM model unambiguously show ongoing NR. Recent data from the 2012 LWG fish tissue sampling and the subsequent 2014 surface sediment sampling results for PCBs also demonstrate that the NR process is well underway within the Site. In fact, a conservative estimate suggests a 40% reduction in fish tissue PCB concentrations during the last 10 years since the RI data were collected. The data from these recent sampling events correlate well with other recent fish tissue studies, observed benthic community recovery and the coupled sediment-transport food web model developed by the LWG.

Other lines of evidence that support NR's efficacy include the following:

- The Oregon Department of Environmental Quality (ODEQ) has progressively controlled contaminant loading from upland sources. ODEQ's latest 2014 source control report indicates that ODEQ has completed source control evaluations and has implemented, or will soon implement, controls on one or more potential pathways at approximately 119 of 168 sites examined in detail to date. The upland control of these sources undoubtedly has had a positive effect on contaminant loading and biological receptor uptake, as reflected in the recent sampling data.
- Sediment trap and suspended sediment data reveal that incoming sediment settling in the Site has substantially lower contaminant concentrations than most of the Site's bedded sediment. This ongoing action will continue to decrease bedded sediment concentrations over time.
- Surface to subsurface sediment concentration ratios in most areas of the Site indicate newer surface sediments contain lower concentrations than older subsurface sediments. This illustrates that surface sediment concentrations are decreasing over time.
- Small-mouth bass PCB tissue measurements reported in 2002, 2007, and 2012 indicate statistically significant declines in tissue concentrations across almost all areas of the Site.[3]
- Comparisons of sediment profile images collected in 2001 (by the LWG) and 2013 (by other PCI Group parties) indicate that much of the Site has well established Stage 3 benthic communities

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[1] These comments are being submitted by the following potentially responsible parties: Air Liquide USA LLC; Atlantic Richfield Company; BAE Systems San Diego Ship Repair Inc.; BP West Coast Products LLC; Exxon Mobil Corporation; Schnitzer Steel Industries, Inc.; Shaver Transportation Company; The Marine Group, LLC.

[2] LWG FS.

[3] Anchor QEA 2013. Lower Willamette River Smallmouth Bass Data, Monitored Natural Recovery Analysis. Presentation to EPA, Region 10. March 18, 2013.

indicative of stable and recovering substrates. These positive benthic changes differ significantly from the RI/FS baseline assumptions, which are derived from data that are almost 10 years old.

The US Army Corps of Engineers' preferred approach to sediment remediation recommends starting with the least aggressive method and only performing dredging when all other methods fail.[4] Nonetheless, the FS uses a single quantifiable measure of performance to evaluate alternatives: estimated sediment contaminant concentrations immediately following active remediation. Instead, the FS should evaluate ongoing NR prior to active remediation in the River. This proposed approach is sound from a technical and regulatory standpoint and consistent with other mega-sediment sites, the National Contingency Plan (NCP) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) policy and guidance.

Thus EPA should quantify and evaluate the ongoing effects of NR on the River system and the viability of NR as a **larger** component of the FS's active remedial alternatives. EPA should consider NR (more sustainable remediation) as the first alternative instead of the more intrusive measures (i.e., dredging) that would destroy the gains made over the past 10 years.

Constructability Issues

The FS does not sufficiently consider critical implementation issues that will have significant negative consequences to the River, the stakeholders and the community. Specifically, the FS uses unrealistic or unexplained production rates, which results in significant underestimation of both construction time frames and potential remedial costs. These construction-related implementation issues will substantially increase the duration, difficulty, safety and cost of the cleanup.

Many of the presented assumptions about volumes, implementation and costs are inconsistent with documented experience at other large sediment sites. For example, the FS's production calculations assume that dredging will proceed 24 hours per day, 6 days per week, during the entire four month in-water work window for each year, for anywhere from 4 to 36 years. During the PCI Group meeting on September 29, EPA referred to Boeing's Plant 2 Early Action dredging project on the Lower Duwamish Waterway Superfund Site,[5] as an example of a site implementing a 24-hour dredge cycle; however, dredging was actually performed there on a 20-hour cycle for a quantity of just 129,973 cubic yards of material; therefore, the dredging occurred over a much shorter time period than what is being proposed for Portland Harbor. 24-hour dredging in a multi-year project in an active working harbor is unprecedented and most likely unrealistic. In addition, while the FS briefly mentions the likely objections of the nearby residential neighborhoods to light and noise pollution and general construction-related disturbances associated with sustained 24-hour construction work, it fails to analyze the impacts this level of work will have on local communities.

The production rate assumptions also do not include a complete estimate of dredging efficiency, which is an industry-standard design component used in all other remediation and navigation

[4] The Four Rs of Environmental Dredging: Resuspension, Release, Residual, and Risk, USACE, 2008.

[5] Lower Duwamish Waterway Stakeholder Meeting Boeing Plant 2, November 18, 2014, presented by Brian Anderson at The Boeing Company.

dredging projects in the USA. The information that typically supports dredging efficiency analysis and is used to develop production rate assumptions includes:

- Size and type of dredge bucket and material barges;
- Cycle time between bucket grabs;
- Efficiency of the dredge bucket (i.e., volume of excess water collected within each bucket grab);
- Assumed average uptime for dredging (i.e., percent of total time available in which dredging occurs);
- The time necessary to reposition and transport dredges and barges associated with the removal; and
- The feasibility of siting, constructing and operating an upland sediment processing facility of sufficient size in an active port to support the dredging.

The absence of this information in the FS undermines its transparency and is wholly inconsistent with other similar mega-sediment sites and with standard industry practices, particularly given the substantial associated effects on the health and safety of workers, the environment, the affected community and River-dependent employers.

Overly optimistic estimates about the time to complete construction also undermine the FS's assessment of the long- and short-term effectiveness of each alternative and compound the projected duration of the project in a way that will significantly change the conclusions about the more resource-intensive remedies. The FS does not appear to include any time for preparation of dredging areas (e.g., placement and removal of silt curtains), moving operations from one dredge area to another, debris management, implementation of construction-related best management practices and placement of capping materials. Duration estimates are not accounted for in the FS with respect to siting and development of sediment and water staging, handling, treatment, and transloading facilities. The FS does not clearly address the potential effects of process bottlenecks at transload, ex-situ treatment, or water treatment facilities. For these and other reasons, the FS's production assumptions result in a flawed comparison of short- and long-term effectiveness and implementability of alternatives.

The use of unrealistic and unexplained dredging assumptions and the related underestimation of dredging costs in the FS preclude meaningful comparison of the cost effectiveness of remedial alternatives as required by the NCP and CERCLA.

Risk and Risk Drivers

The FS is inconsistent with EPA guidance and generally accepted CERCLA and NCP policies related to identifying risks and risk drivers. All of the FS alternatives are evaluated solely against the highest risk estimates and most conservative risk scenarios identified in the baseline risk assessments. Additionally, these analyses and determinations lack any application of risk management principles and in fact are inconsistent with the baseline risk assessments. The FS focuses solely on reducing

concentrations of COCs which is inconsistent with EPA's FS Guidance[6] stating that Response Action Outcomes (RAOs) should express both a contaminant level and exposure to achieve protectiveness. Remedial goals should consider expected exposures after implementation of the remedy.

Moreover, the FS uses very conservative assumptions that likely do not characterize any individual's actual exposure. An example is the RAO based upon the risk to nursing infants of mothers who consume fish. Many other sites establish remedial goals based upon adults who consume fish, but the FS inexplicably focuses on a highly uncertain, indirect pathway which does not have precedence at any other mega-sediment site in the nation. The nursing infant receptor pathway is implausible because it assumes a mother (tribal fisher) consumes 2.7 pounds of resident fish per week caught only from the site for 25 years. This simply will not and does not occur in reality. Preliminary Remediation Goals (PRGs) should be based on the consideration of appropriate factors including uncertainty in the data supporting the underlying assumptions and their relevance to potentially exposed populations. Yet, this particular risk analysis constitutes a major factor in driving the Remedial Alternatives and, if left unchanged, will significantly:

- increase dredging volumes in all areas of the site;
- increase dredging, handling, treatment, transportation and disposal costs;
- extend construction durations and impact river-bottom and riverbank footprints;
- increase likelihood of injury and mortality to remedial workers; and
- extend the duration, extent and degrees of disruptions to the River's natural biological functioning and the nearby industrial and residential neighborhoods.

Likewise, the FS's application of extremely low thresholds to identify Principal Threat Waste (PTW) means large quantities of material that could be reliably and economically controlled through capping will instead be subject to costly in-situ treatment that provides no actual additional risk reduction. The FS also identifies other PTW (i.e., sediments) to be removed from the Site and treated prior to disposal in a permitted landfill, but it does not analyze whether such treatment provides any direct risk benefit. Similarly, the FS seems to indicate that dredged or excavated materials that are not "hazardous wastes" must nonetheless meet hazardous waste land-disposal restrictions, rather than the land-disposal restrictions that otherwise would apply. Consequently, the FS places an unwarranted burden on the management of remediation material that would increase costs by hundreds of millions of dollars without any associated risk reduction and places unnecessary demands on the community landfill airspace when these materials, once out of the water, will be as non-hazardous as dry soil.

Overdredging Due to Flawed Applications of Alternative Analyses

New data that clearly demonstrate the effectiveness of NR warrant re-evaluation and support flexibility in the application of alternative remedial approaches and technologies especially regarding proposed dredging prisms. The current screening process favors mass removal actions (such as

[6] US EPA. 1988. Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA Interim Final. Office of Emergency and Remedial Response. EPA/540/G-89/004. October.

Alternative E) which are unsupported by the risk assessments and in contrast to existing Site data and other technical information. The favoring of mass removal without consideration of all relevant data and other technical information is inconsistent with the NCP, EPA's own CERCLA guidance and executive policies, as referenced in the cover letter.

In addition to the flaws identified above regarding over-designation of PTW that will result in excessive and unwarranted dredging, the FS is also suggesting that non-PTW areas be dredged without sufficient justification. Specifically, ~45% of the proposed in-water dredging is not associated with PTW areas but is associated with:

- Navigational Channel and Future Maintenance Dredging areas;
- Dredging prior to capping;
- Other dredging (outside of the Navigational Channel and Future Maintenance Dredging areas) that is not PTW; and
- Riverbanks.

The FS uses a simplified approach to estimating dredge volumes, which has a large potential to substantially underestimate the dredge volumes that will ultimately be included in a Remedial Design (RD). It is possible that this one issue alone could lead to cost estimates outside the prescribed guidance of +50 to -30% range.[7] Unlike the 2012 draft FS; the current FS does not determine FS-level dredge prisms. These prisms typically incorporate stable slope assumptions, offsets from structures, integration with adjacent technologies and a residual "cleanup" pass depth.[8] The FS volumes also do not consider engineering factors addressing the uncertainty in FS-level volume estimates as compared to RD-level estimates (e.g., allowance for new inventory discovered during design sampling, generated residual sediment RD-level prisms, and transition slopes from deep to shallow dredge cuts.) Instead, the FS uses general factors of 1.5 and 2 times their calculated neat volume to address all these issues. The result is a very approximate volume estimate and likely a substantial underestimate of future design volumes which, as previously noted, will likely contribute to significant unwarranted project cost increases without any corresponding reduction in risk.

The assumptive remedy also inexplicably includes dredging to depths that are below those authorized by Congress; yet, the administrative record is silent on this issue. Additionally, based on lack of data at 43-48 feet and EPA's assumption that significant deposition does not happen in the Willamette, it is unclear why contamination is assumed at depths never previously attained in the river. A discussion and analysis of subsurface sediment data from -43' to -48' Columbia River Datum in the RI dataset is needed.

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[7] EPA. 2000. A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. USEPA 540-R-00-002 OSE 9355.0-75. July 2000.

[8] Although EPA mentions elsewhere that one residual cleanup pass is assumed for dredging operations in general, this is not mentioned in the paragraph describing the volume calculations.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: National Remedy Review Board

FROM: Stephen D. Luftig, Director
Office of Emergency and Remedial Response

TO: Director, Office of Site Remediation and Restoration
Region I
Director, Emergency and Remedial Response Division
Region II
Director, Hazardous Waste Management Division
Regions III, IX
Director, Waste Management Division
Region IV
Director, Superfund Division
Regions V, VI, VII
Assistant Regional Administrator, Office of Ecosystems
Protection and Remediation
Region VIII
Director, Environmental Cleanup Office
Region X

Purpose

The purpose of this memorandum is to update you on National Remedy Review Board progress and bring to your attention important Board operating procedures.

Background

As you know, Assistant Administrator Elliott Laws formed the Board in November 1995 as part of Administrator Browner's Superfund reform initiatives. The Board's goals are to help control remedy costs and promote consistent and cost-effective decisions at Superfund sites. It has been functioning since January 1996. Though impeded by FY 96 appropriation delays, to date, the Board has held four meetings and numerous conference calls, during which it completed reviews on twelve sites. The Board has also worked to finalize the procedures under which it will operate in the near future.

This dedicated group of Regional and national Agency experts, coupled with the hard work of many Regional program colleagues, has already contributed greatly to improved consistency and cost effectiveness in cleanup decisions. I want to thank you and your staff especially for working so closely with us during this important first year. Board efforts in FY 96 will be detailed in a year-end report for your information.

Key Operating Protocol

To ensure that the upcoming fiscal year's Board activities are as productive as those of the past nine months, we need your continued assistance. An effective site review requires significant advance preparation, organization, and time commitment from the Regional management and staff who participate. In particular, the RPM is responsible for several important coordination functions as highlighted below. I recognize that the past year's budget situation has stretched our already limited resources. Nonetheless, it is essential that we commit the resources necessary to guarantee informed and constructive dialogue at Board meetings.

For your information, the text below highlights several important operating protocol describing how the Board expects to work with the Regions, involve important stakeholders and handle the timing of reviews. Involvement of the Board is a key step for many sites in the Superfund remedy selection process. Each Regional office is responsible for ensuring that these protocol are followed to avoid delaying proposed plan issuance.

Regional Responsibilities

As indicated in the original Reform language, the Board makes "advisory recommendations" to the Regional decision maker who then makes the final remedy decision giving consideration to the complete range of available information. While the Region is expected to give the Board's recommendations substantial weight, other important factors, such as subsequent public comment or technical analyses of remedial options, may influence the final Regional decision. It is important to remember that the NRRB does not change the Agency's delegation authorities or alter in any way the public's role in site decisions. It is expected, however, that the Regions will provide for the record a written response to Board recommendations. In general, a Region should not issue the proposed plan until it has received and considered the written Board recommendations.

State/Tribal Involvement

The Board recognizes that the states and tribes have a unique role in the Superfund program as "co-regulators," and has taken steps to ensure their significant involvement in the review process. With this in mind:

- The Region is to consult with the affected state or tribal government well before the Board meetings to ensure that key decision makers understand the background and intent of the review process. The Region should also make clear that the states and tribes will have the opportunity to present their views directly to the Board.

- As part of current procedure, the Region develops an informational site package that forms the basis of Board review. The Board asks that each Region work with appropriate state and tribal personnel to ensure that the "summary of state issues" section of that package is accurately developed.

- The Regional RPM is to distribute the full site package to the appropriate state and/or tribe concurrent with Board distribution. He or she should also solicit their general reaction to the material at this time.

- For each site, the Board meets in two stages: information-gathering and deliberations. The Board will routinely invite state and/or tribal decision makers to the information-gathering phase of its site reviews. The Board will invite the state and/or tribe to participate in the deliberative discussion for state-lead fund-financed decisions, and for state/tribe enforcement-lead decisions where the state/tribe seeks EPA concurrence. Otherwise, the Board will limit its deliberative discussion to Agency personnel.

PRP Involvement

- Private parties significantly involved with the site study and/or response actions are to be notified by the appropriate Regional office of the Board's site review.

- The Board believes that PRPs who conduct the RI/FS can provide valuable input to the review process. Therefore, the Regional RPM is to solicit technical comment or discussion, well before the Board meetings, from the PRPs that are substantively involved in conducting the RI/FS.

These submissions should not exceed five pages in length, and should be attached to the informational site package provided to all Board members.

- The Board recognizes that PRPs who do not conduct the RI/FS may conduct studies that might also be valuable to the Board's review process. In these cases, the Region may, at its discretion, solicit similar input from these stakeholders.

Community Involvement

- For sites at which EPA has awarded a Technical Assistance Grant (TAG) or recognized a Community Advisory Group (CAG), the Region is to notify appropriate contacts well before the meeting and ensure they also understand the review process.

- The Region is to offer the TAG recipient and/or CAG the opportunity to submit written comments or concerns to the Board concerning site-specific issues they think will be important to the Board's discussions. These submissions are also limited to five pages in length.

- Where the Region has established substantial working relationships with other stakeholder groups early in the RI/FS process, the Region may, at its discretion, offer similar opportunity for written comment. from these parties.

Timing of Review

- The Board plans to review sites early in the remedy selection process, before the Region releases the proposed plan for public comment.

- Occasionally, however, a post-proposed plan site may benefit from Board review. For example, remedy changes in response to public comment may increase the total remedy costs. Where these additional cleanup costs exceed 20 percent of the original cost estimate and trigger normal Board review criteria, the Board may review the draft remedy.

Federal Facilities Review Criteria

The Board is continuing its discussions with representatives from the Federal Facilities Restoration and Reuse Office.(FFRRO), the Federal Facilities Enforcement Office (FFEO), and with other federal agencies to develop review criteria for federal facility

sites. While these final criteria are under development, FFRRO and FFEO have recommended the following interim criteria:

- For federal facility sites where the primary contaminant is radioactive waste, the Board will raise the dollar trigger from $30 million to $60 million and delete the "50% greater than the least costly alternative" criterion.

- The Board will not review NPL site decisions on Base Realignment and Closure (BRAC) sites.

- All other federal facility sites (i.e., those that involve non-radioactive waste only) are subject to standard review criteria.

To assist you in communicating with other Superfund stakeholders about the Board review process, I am attaching to this memorandum a fact sheet titled "Questions and Answers on EPA's NRRB." Additional tools to assist you and your staff with the review process will be available shortly.

I believe this Reform has accomplished much during the past nine months. The hard work put forth by your staff and the Board members has paid off in significant cost savings. I look forward to similar success over the next fiscal year. Finally, the Board plans to continue its dialogue with interested stakeholders to work toward a process that is agreeable and fair to all involved. We welcome your thoughts in this area as well.

Please contact me, or National Remedy Review Board Chair Bruce Means (at 703-603-8815) if you have any questions or comments.

cc: E. Laws
T. Fields
OERR Center Directors
OERR Senior Process Managers
B. Breen
J. Woolford
W. Kovalic
L. Stanfield
W. Farland
R. Olexsey
E. Trovato

EPA ROUND THREE: SUPERFUND REFORMS AT A GLANCE

EPA National Superfund Remedy Review Board

This reform is one of twenty new "common sense" administrative reforms announced in October 1995, by US EPA Administrator Carol Browner. These reforms will fundamentally redirect the Superfund program to make it faster, fairer, and more efficient.

WHAT IS THE NATIONAL REMEDY REVIEW BOARD?

The National Remedy Review Board (the Board) is one of the principle Superfund Reforms that Administrator Browner announced in October 1995. Its goal is to promote cost-effectiveness and appropriate national consistency in remedy selection at Superfund sites. To accomplish this, the Board analyzes proposed site-specific cleanup strategies to ensure they are consistent with current law and regulations. The Board also considers relevant Agency guidance. The Board's members are technical experts and managers from each EPA Region and several EPA Headquarters offices.

After its review, the Board issues recommendations as to how or whether a potential Superfund site remedy decision can be improved. Although Board recommendations are not binding, EPA Regional decision makers give them substantial consideration. EPA believes the Board is contributing significantly to more cost-effective, consistent Superfund remedies.

WHAT ARE THE CRITERIA THAT TRIGGER BOARD REVIEW?

The Board will review proposed remedies for which (1) the proposed remedy cost is more than $30 million; or (2) the proposed remedy costs more than $10 million and is 50% greater than the least-costly, protective cleanup alternative that also complies with other laws or regulations that are either "applicable" or "relevant and appropriate" to a site decision.

The Board expects to review every proposed decision that meets the above criteria at Superfund sites that are not Federal facilities Because of their size and complexity, the Board is developing a separate set of Federal facility site review criteria. EPA encourages anyone with concerns about a particular site to contact the EPA Region in which that site resides.

WHAT DOES THE BOARD LOOK AT WHEN-IT REVIEWS A SITE?

The Board analyzes the cleanup strategy to ensure that it is consistent with the Superfund law and the National Oil and Hazardous Substances Pollution Contingency Plan (or NCP). The NCP is the Federal regulation that details procedures for responding to oil or hazardous substance releases. The Board also considers relevant EPA cleanup guidance.

When they review a site, the Board members ask many questions about the proposed cleanup strategy. Site-specific circumstances often influence the nature of the discussion. Among others, Board members investigate subjects like these below:

--What are the details of the Regional proposal for site cleanup?

--What are the positions of the State/Tribe, potentially responsible parties (PRPs), and communities?

--Will the cleanup strategy be effective?

--What is the rationale behind exposure scenarios and risk assumptions?

--Are the cleanup goals appropriate and attainable?

--Have other approaches to achieve the cleanup goals been evaluated?

--Are the cost estimates reasonable?

--Is the strategy consistent with other Agency decisions?

WHAT IS THE ROLE OF INTERESTED PARTIES IN THE REVIEW PROCESS?

Community Involvement

For sites at which EPA has awarded a Technical Assistance Grant (TAG) or recognized a Community Advisory Group (CAG), the Region will notify appropriate contacts well before the Board meets to ensure they understand the nature and intent of the review process.

The Region will offer the TAG recipient and/or CAG the opportunity to submit written comments or concerns to the Board concerning site-specific issues they think are important. These submissions are limited to five pages in length.

Where the Region has established substantial working relationships with other interested groups early in the RI/FS process, the Region, at its discretion, may offer similar opportunity for written comment.

State/Tribe Involvement

The Board recognizes the unique State/Tribe role in the Superfund program as "co-regulators," and has taken steps to ensure significant State involvement in the review process.

The Region will consult with the affected State/Tribe well before the Board meeting to ensure that key State/Tribe decision makers understand the nature and intent of the review process. They will also make clear that the State/Tribe will have the opportunity to present their views at Board meetings.

As part of current procedure, the Region develops an informational site package that forms the basis of Board review. The Board will ask that each Region work with the

appropriate State/Tribe to ensure that the "summary of State/Tribe issues" section of that package is accurately developed.

The Region will distribute the full site package to the appropriate State/Tribe concurrent with Board distribution. They also will solicit the State/Tribe's general reaction to the material.

For each site, the Board meets in two stages: information-gathering and deliberations. The Board will routinely invite State/Tribe decision makers to the information-gathering phase of its site reviews. The Board will invite the State/Tribe to participate in the deliberative discussion for State/Tribe-lead Fund-financed decisions, and for State/Tribe enforcement-lead decisions where the State/Tribe seeks EPA concurrence. Otherwise, the Board will limit its deliberative discussion to Agency personnel.

PRP Involvement

The Board believes that PRPs who conduct. the RI/FS can provide valuable input to the review process. Therefore, the Regional Project Manager (RPM) will solicit technical comment or discussion, well before the Board meetings, from the PRPs that are substantively involved in conducting the RI/FS. These submissions should not exceed five pages in length, and should be attached to the informational site package provided to all Board members.

The Board also recognizes that PRPs who do not conduct the RI/FS may conduct valuable studies. In these cases the Region, at its discretion, may solicit similar input.

HOW DO I FIND OUT WHETHER THE RRB WILL REVIEW A SITE?

If you have questions about a particular Superfund site, please call the EPA Region in which it is located. They will put you in touch with someone who knows about the site.

FOR MORE INFORMATION.

You may also call EPA's Superfund Hotline at 1800-424-9346 (or 703-412-9810 within the Washington, D.C. area) to get general information about EPA, the Remedy Review Board, and the Superfund program. The Hotline will refer you to the appropriate EPA Region, program office, or staff member should you have questions they cannot answer.